

Appl. No. 10/643,365
Amdt. dated April 4, 2005
Reply to Office Action of January 4, 2005

IN THE CLAIMS

1. (Original) A razor assembly which comprises:
 - a) a razor head having at least one blade; and
 - b) a shaving aid delivery system associated with the razor head, the shaving aid delivery system including a framework with a supply of at least one shaving aid fluid, a microfluidic circuit for communicating the shaving aid fluid from the supply to a plurality of outlet ports along a surface of the framework, and a transport system for driving the shaving aid fluid from the supply through the microfluidic circuit.
2. (Original) The razor assembly of claim 1 wherein the framework includes at least two substrates stacked together.
3. (Original) The razor assembly of claim 1 wherein the framework includes a first substrate, a second substrate and a third substrate, connected together in a stacked array.
4. (Original) The razor assembly of claim 3 including a microchannel circuit between the first substrate and the second substrate.
5. (Original) The razor assembly of claim 4 wherein the supply of at least one shaving aid includes at least two reservoirs in the third substrate, each reservoir containing a individual shaving aid, wherein the second substrate includes vias for communicating the shaving aid from the third substrate to the microchannel circuit.
6. (Currently amended) The razor assembly of claim 1 wherein the transport system includes at least one osmotic pump in ~~the third~~ a substrate.
7. (Original) The razor assembly of claim 6 wherein the osmotic pump includes

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a reservoir containing the shaving aid fluid.

8. (Original) The razor assembly of claim 7 wherein the osmotic pump includes an osmotic driving material separated from the reservoir by a movable, substantially impermeable barrier.

9. (Original) The razor assembly of claim 8 wherein the osmotic driving material is selected from the group consisting of sodium chloride, potassium chloride, magnesium sulfate, sodium sulfate, calcium chloride, lithium chloride, sodium acetate, dextrose, lactose and fructose.

10. (Original) The razor assembly of claim 9 wherein the barrier is a slidably movable piston.

11. (Withdrawn) The razor assembly of claim 8 wherein the barrier is a flexibly expandable pouch in which the osmotic driving material is contained.

12. (Original) The razor assembly of claim 8 wherein the osmotic pump includes a semipermeable membrane disposed between the osmotic driving material and an inlet opening in the osmotic pump.

13. (Original) The razor assembly of claim 12 wherein the semipermeable material is selected from the group consisting of cellulose acetate, polyamide, cellulose acetate butyrate; ethylcellulose, cellulose nitrate and combinations thereof.

14. (Original) The razor assembly of claim 12 wherein the inlet opening is covered by a removable or breakable seal.

15. (Original) The razor assembly of claim 1 further including a handle to which the razor head is attached.

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16. (Original) The razor assembly of claim 1 wherein the shaving aid is selected from the group consisting of silicone oil, polyethylene oxide, non-ionic polyacrylamide, guar gum, depilatory agent, a silicone polyethylene oxide block copolymer, sodium lauryl sulphate, antiseptic, skin conditioner, blood coagulant, vitamin E, sodium pyruvate, sunflower oil, Dimethicone, C₁₂-C₁₅ alcohol benzoate, glycerin, cetyl alcohol, stearyl alcohol, jojoba oil, allantoin, aloe vera and sesame oil.

17. (Original) The razor assembly of claim 1 wherein the supply of shaving aid includes at least two reservoirs, each reservoir containing an individual shaving aid fluid of the same or different type, and the shaving aid delivery system includes means for selecting one or more of the shaving aid fluids for delivery to the outlet ports.

18. (Original) The razor assembly of claim 17 wherein the transport system includes an individual osmotic pump for delivering each individual shaving aid fluid, each osmotic pump including an inlet for admitting water therein for driving the osmotic pump, and wherein the means for selecting one or more shaving aid fluids comprises a removable or breakable seal disposed across each inlet.